

### REMARKS

Claims 20, 21, 23-30, 32, 38-42, and 58-72 are pending in the application. Claims 43-52, 54-57, and 73-87 have been canceled. No other amendments to the claims have been made. The pending claims are presented for further consideration in view of the following.

#### Claim Rejections under 35 U.S.C. §103

The Examiner provides inconsistent listings of Claims rejected under §103. In particular, the Examiner initially lists Claims 20, 21, 23-30, 32, 38-41, 43, 52, 54-81, and 83-87 as being unpatentable over Szafranski et al. (U.S. Patent No. 5338051) in view of Bronson (U.S. Patent No. 5,785,342). However, the Examiner proceeds to discuss Claims 20, 21, 23-30, 32, 38-52, 54-66, 67-81, and 84-87. Applicant notes that the inconsistency is mooted by present amendments. In particular, as Claims 43-52, 54-57, and 73-87 have been canceled, Applicant respectfully submits that the inconsistent listing and rejection of those claims are moot. Applicant respectfully submits that each of the pending claims is patentable over the cited prior art for at least the reasons provided below.

#### **Claim 20**

Claim 20 recites "wherein said mounting aid comprises at least one of snap-in lugs and detent apertures, spaced from one another in the longitudinal direction of the device, configured for the snap-in positioning and fixing of a binding or components thereof." The Examiner acknowledges that Sanfranski does not teach this limitation. However, the Examiner alleges that this defect is cured by Bronson. In particular, the Examiner alleges that "Bronson discloses a ski 15 with a binding plate 21 and longitudinal spaced, stud-like lugs 110 for engaging detent apertures 12, as shown in figure 2." Applicant respectfully submits that the cited portions of Bronson do not meet the limitations of the Claims. Figure 1 of the present specification and the accompanying text identify the referenced detent apertures:

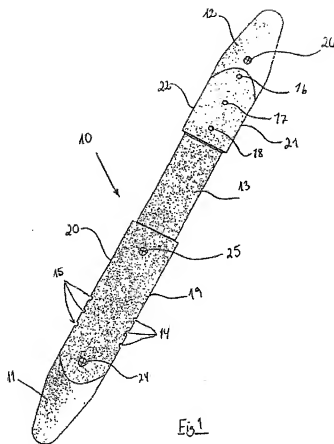


Figure 1 shows a binding plate according to one embodiment of the invention. As disclosed in the present specification: "there are formed at the two longitudinal edges 19, 20 of the front portion 11 of the binding plate 10 detent notches 14, 15, which cooperate with corresponding snap-in elements on the housing of the binding 28." Para. [0027]. Thus, as recited in the claim, the snap in lugs and detent apertures are part of the mounting aid and are configured for snap in positioning of the binding or its components. The Examiner has identified in Bronson various teachings which do not meet the recited limitation. For example, feature 12 of Bronson, identified as a detent aperture by the Examiner, is a hole in the body of the ski. Even to the extent the hole is a detent aperture, it is part of the ski and not part of the mounting aid as claimed. Similarly, the Examiner identified feature 110 as a stud-like lug. Presumably, the Examiner is asserting that feature 110 meets the claim limitations relating to snap-in lugs. Bronson does not support this assertion. Feature 110 is described by Bronson is a flattened head of tee nut 31. The tee nut 31 "is permanently fastened to the ski 15 by imbedding it in one of the

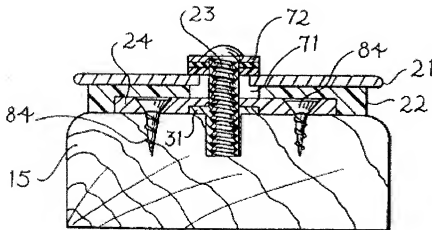
holes 12 pre-drilled into the ski 15 during manufacture.” Col. 3 lines 62-66. The identified features of Bronson relied upon by the Examiner are not snap-in lugs or apertures which are part of the mounting aid for snap in positioning of the binding. Rather, the cited features of Bronson are features in or connected to the ski itself which are used for permanently affixing dampening plates to the ski. The cited teachings do not meet the limitation of Claim 20 recited above. For at least this reason, Applicant respectfully submits that Claim 20 is patentable in view of the cited references.

In addition, it would not be obvious to combine Sanfranski with Bronson because such a combination is improper. “It is inappropriate to combine references where the references teach away from their combination.” M.P.E.P. § 2145 (X)(D)(2). Sanfranski discloses attaching a binding plate to the upper surface of a ski by using thermofusible materials and vibrational welding. Abstract. Sanfranski emphasizes that the disclosed method of attachment is a significant improvement over the prior, deficient method of attachment: screws. In particular, Sanfranski teaches that:

Until the present these applied elements were affixed, on the upper surface of a sliding motive means, by means of a screw extending through holes bored in the applied element and screwed in the blind holes previously bored in the upper surface of the motive means. This process of assembly of an element applied on a sliding motive means has generally been adopted because it appeared as being the only way of ensuring the maximum safety of the skier by rendering impossible, in practice, an untimely separation between the applied element and the sliding motive means. However, such an assembly process has inherent disadvantages by virtue of the fact that it requires the preliminary boring of blind pre-holes in the upper surface the sliding motive means, by indicating the position of these pre-holes by means of a template, then the manual positioning of each screw in each hole of the applied element and its partial engagement in the corresponding pre-hole and, finally, the screwing of the different screws by utilizing a manual or electric screwdriver. It is thus obvious that such an assembly process of an element applied on a sliding motive means which requires several successive operations, requires a substantial handling, and the present invention attempts overcome this major inconvenience as further described below. On the other hand insertion of the screw has another disadvantage of weakening the ski structure. Col. 1, lines-58.

Bronson teaches a dampening assembly which is screwed in to the upper surface of the ski. Abstract. The Examiner relies on hole 12 and tee nut 31 with its flattened head 110 as the

detent aperture and stud-like lugs. These features are illustrated in Figures 2 and 7 of Bronson. Figure 7 is reproduced below:



*Fig. 7*

As shown in Figure 7, tee nut 31 is inserted into the surface of the ski 15. Other screws penetrating the surface of the ski 15 are also used in the assembly taught by Bronson. In view of the disparaging teachings of Szanfranski that drilling into the ski body has "inherent disadvantages" such as "weaking the ski structure," one of ordinary skill in the art would not find it obvious to combine the teachings of Szanfranski with of Bronson. Indeed, because Szanfranski explicitly teaches away from the disclosure of Bronson, the combination of the two references is inappropriate. M.P.E.P. § 2145. Further, as Szanfranski explicitly teaches attachment, "without the use of screws that penetrate the structure of the skis," (Abstract), combining Szanfranski with the device of Bronson would render the device unfit for its intended purpose. Applicant respectfully submits that it is inappropriate to combine references when the proposed modification renders the prior art unsatisfactory for its intended purpose. M.P.E.P. § 2143.01 (V). For at least these reasons, Applicants respectfully requests that the Examiner withdraw the rejection of the pending claims over the present combination of references.

**Claims 21, 23-30, 32, and 38-42**

Claims 21, 23-30, 32, 38-42 are dependent from Claim 20. Applicant respectfully submits that these claims are patentable for at least the same reasons as those discussed above with respect to Claim 20.

**Claim 58**

Claim 58 recites "said mounting aid being bonded over its whole surface with adhesive to the top face of the device." Applicant respectfully submits that this limitation is not taught or suggested by the cited references. The specification of the present application distinguishes between welding and bonding with an adhesive. For example, paragraph [0005] of the published application discusses situations to which welding, as opposed to bonding with an adhesive, is "especially suited." Further, paragraph [0031] discloses different types of welding, such as laser welding and friction-welding processes. The specification separately describes the process of bonding with an adhesive:

When the binding plate 10 is bonded, preferably first of all the side thereof facing the ski top-face is provided with an adhesive so that the binding plate can then be positioned inside a positioning device-where necessary after prior removal of a protective film from the adhesive side-on the top face of the ski and bonded fast thereto.

To increase the strength of adhesion between binding plate 10 and ski top-face, the ski top-face can be mechanically or chemically roughened at the adhesion site. Para. [0032]-[0033].

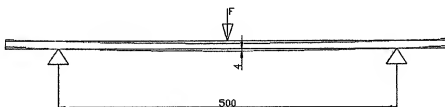
Thus, in reference to bonding with adhesive, the specification contemplates an adhesive material, e.g. a glue, disposed between the binding plate and the ski top-face. This is supported by the disclosure of "[a]n edge groove 31, which runs around the underside of the binding plate and into which excess adhesive can escape." Para. [0029]. Further it reflects the language of the claim regarding the "mounting aid being bonded over its whole surface with adhesive ... the adhesive comprises a layer[.]"

Szanfranski teaches attaching two surfaces through the use of thermofusible materials and vibrational welding. This process is described in the specification as a process wherein the outer layers of the two devices are "positioned in fusion by alternating friction, under pressure, of the

motive sliding means and the applied element against one another” such that “after fusion the two layers [are] intimately mixed in a manner so as to form only a single homogeneous layer.” Col. 2 lines 15-23. While the welding of Szanfranski may result in an attachment between the two devices, the frictional welding of Szanfranski is not bonding with adhesive. Claim 58 recites “said mounting aid being bonded over its whole surface with adhesive[.]” Thus a reference disclosing only attachment by welding, and not bonding by adhesive, does not meet this limitation. Szanfranski does not teach a “mounting aid being bonded over its whole surface with adhesive.” Bronson does nothing to cure this defect. Bronson is directed to a vibrational dampener which is directly bolted and screwed into the body of the ski. Abstract, figure 7. As neither reference teaches the above identified limitation, Applicant respectfully submits that Claim 58 is not unpatentable over the cited art.

In addition to the above, Applicant notes that the use of an adhesive rather than welding is especially advantageous. For example, when using an adhesive, micro movements between the mounting aid and the top surface of the ski are possible. Thus, the flexibility of the ski body is minimally affected by the use of adhesive. This advantageous feature of glue has been confirmed by experimental measurement. The measurements are summarized below:

**Test equipment**



Ski without NIS plate	21.4 kp/mm	G modulus	0
Ski with NIS plate without glue	21.5 kp/mm	G modulus	0
Ski with NIS plate and glue	21.8 kp/mm	Gmodul glue	Low

As indicated, the stiffness was measured under three separate conditions. First, the stiffness of a ski without a binding plate is measured. Next, the stiffness of the ski with a binding plate and no adhesive is measured. Lastly, the stiffness of the ski with a glue is measured. As

indicated, the effect of the glue on stiffness is minimal. In contrast, the use of welding results in a rigid surface that negatively affects flexibility of the ski body. This rigid connection is explicitly acknowledged in Szanfranski in describing the welding process: "This pressure P is maintained during a short period of time, on the order of several seconds, after cessation of the vibrational longitudinal movement, to allow for the cooling and the solidification of the homogeneous attachment layer which previously fused and to obtain a rigid and strong layer or weld between the ski 1 and the slide 2." Further, the use of an adhesive allows for compensation for differences in thermal expansion coefficients of materials used for the ski and mounting aid. Welding, on the other hand, limits the choice of materials that can be used and adversely impacts decorative coatings. Thus, the use of an adhesive is advantageous in comparison to the use of the welding process described in the cited references.

Further, Applicant wishes to address the Examiner's remarks with respect to the limitation of Claim 58 related to thickness of the adhesive layer. Specifically, the Examiner states that "the thickness of the adhesive layer or weld is not viewed as patentable unless it produces an unexpected result." The Examiner has not provided any factual support for the assertion that an "adhesive comprises a layer having a maximum thickness of 5 to 10% of a thickness of the mounting aid or binding plate" is obvious. Rather, the Examiner has placed the initial burden on the Applicant to prove that such a limitation "produces unexpected result." This burden shifting is inappropriate. To establish a prima facie case of obviousness, the Examiner must show that each limitation is taught by one or more of the cited references. See *In re Royka*, 490 F.2d 981, 180 USPQ 580. (CCPA 1974); M.P.E.P. §2143.03. It is not the Applicant's burden to disprove a case of obviousness that has not properly been established.

The Examiner may be making the argument that the thickness of the adhesive layer is a result effective variable to be optimized. However, there is no evidence of record that adhesive thickness would have been a result effective variable to be optimized. A particular parameter must first be recognized as a result-effective variable, *i.e.*, a variable which achieves a recognized result, before the determination of the optimum or workable ranges of the variable might be characterized as routine experimentation. See *M.P.E.P. §2144.05.II.B*; see also *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977). As set forth in the specification, the recited thickness

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provides a strong bond without producing a damping volume. Accordingly, absent evidence that those of skill in the art would have recognized these values as result effective variables to be optimized, it cannot be asserted that optimization of such values would be a matter of routine experimentation. Should the rejection be maintained, Applicants respectfully request that documentary evidence supporting such assertions be provided in accordance with M.P.E.P. §2144.03, *In re Zurko*, 258 F.3d 1379, 1385, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001) and *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970).

#### **Claims 59-72**

Claims 56-72 are dependent from Claim 58. Accordingly, Applicant respectfully submits that these claims are patentable for at least the reasons described above with respect to Claim 58.

#### **No Disclaimers or Disavowals**

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

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Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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By:  \_\_\_\_\_

Thomas R. Arno  
Registration No. 40,490  
Attorney of Record  
Customer No. 20995  
(619) 235-8550

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